



## Facilitites Management Research in the Nordic Countries

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FACILITY MANAGEMENT MAGAZINE

NETHERLANDS

# Nobody understands the New Way of Working

## Managers are redundant it is leaders that we need

by Marion Visser-De Boer



Susanna Caravatti-Felchlin, MBA

Board Member of fmpro, Switzerland



The European Facility Management Conference EFMC is not only an important network platform but also a very good place to discuss new and prevailing FM themes. A common European competency model for FM was one of the themes that different country representatives, including me, argued for in a panel discussion.

To ensure a strong perception of FM in a challenging world with different localized economy market conditions, we need a common European or even Global FM competency model.

It is not sufficient to agree on common European Standards with EN15221. The introduction of a common model will facilitate the promotion of FM professionals and attract prospective young people to this profession.

There are many varied "competency areas" an FM professional needs to be familiar with. The model should include 60-80% FM related competency areas focusing on core FM skills such as operations and maintenance management, knowledge of real estate and property management, design & construction

skills, hospitality, health and safety, environmental awareness, use of IT and software solutions in FM service provision, innovation as well as adopting flexible and efficient working practices. Common management areas like leadership, strategy development and risk management are core to development.

EuroFM and Global FM are the right vehicles based on existing models from The Netherlands, UK and Germany, to develop and agree on a common FM competency model.

Susanna Caravatti-Felchlin is Board Member of the Swiss Association of Facility Management and Maintenance fmpro and Director, Corporate Real Estate and Facility Management at UBS.

We meet at Amsterdam's Dauphine restaurant. "This is a perfect expression of the New Way of Working," says Erik Veldhoen. "It's always dynamic here. They're always working here." Veldhoen pioneered the New Way of Working and has been honoured for this with the Dutch Ework Foundation's Lifetime Achievement Award.

Veldhoen caused a stir in the 1990s with his firm, Veldhoen & Company. It was there that he developed the concept which would later become known in the Netherlands as Het Nieuwe Werken (The New Way of Working). "At that time, we were just as often declared insane as given high praise. A lot of people think that our concept for the New Way of Working began at Interpolis, but that's not the case. It started with the South Limburg police force in 1991. The force was led by a visionary police chief who, after the national and municipal police forces were merged into the regional police force, faced the task of establishing new police stations. He asked me to design these, but he wanted them to be different. He saw the errors in previous police station designs; these were fortresses that a victim hardly dared to enter. Internally, all the processing streams ran together, meaning that victims would encounter perpetrators. The investigators didn't talk to the officers. The environment did

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not facilitate good communication.

"This police chief realised that information technology would come to play an important role in police work. The faster information can be shared, the faster you can track down and arrest the perpetrator. The minister then determined that more officers were needed on the street, and all the factors for revising the police station layout were present.

"If more officers are working on the street, that means they don't need as many stations. I also noticed that, when they were at the police station, not everyone behind a desk was doing administrative work. It also happened that officers would be swapping jokes with each other while a colleague had to conduct a difficult interview in the same room, one that required a complicated statement to be taken.

"For me, that was the impetus to establish a different layout. The space had to be laid out in an activity-related way. Good places were needed for officers to be able to communicate, places where they could work in concentration, and a number of places where they were able to take and process statements.

"So we built the first flexible, activity-related offices in South Limburg. These buildings were 40 percent smaller than a regular police station. For this reason, we were able to do much more with the money available. At the same time, I did have some sleepless nights as well, asking myself if it would work the way we'd conceived it.

"That sense of responsibility motivated me to study further. I went to the Scandinavian countries, where I saw a lot of evidence of how offices could handle information technology. I saw very clearly the link between technology, the way you work and the facilities you then need. I found it so interesting that I wanted to write a book about it. It was on a train to Munich, on the way to a company that was very active in creating combination offices, that the penny dropped. This was when I really discovered the trinity of technology, work processes and facilities. I later termed that the virtual, physical and mental working environment. The three work environments are greatly intertwined, and if you want to achieve a different way of working, you have to look at all three environments. What type of technology do you use, what consequences does that have for work processes, how can you work then and what facilities do you need?

"The conclusion was that you could facilitate work processes with far fewer workplaces and with less space. The book *Kantoren bestaan niet meer* (Offices No Longer Exist) was released in 1995. Even then, we had already gauged that we could make do with far less office space.

"I myself then started working that way as well. The vision was already clear. I came into contact with a member of the Supervisory Board at a birthday party. After chatting for a few hours, he indicated that he thought this was particularly interesting, as it was completely in tune with what Interpolis wanted. An initial discussion followed two weeks later, and what happened afterwards is history."

## At a standstill

Veldhoen stopped work with his company two years ago. "I sold my company and then came to work at a big organisation. That turned out not to be a good fit for me. I'm an entrepreneur. I want to create, not spend my time dealing with a lot of financial reports. I stopped, and was at a standstill at first. Now I've launched a new company: Erik Veldhoen For Change. But it's not just a copy of Veldhoen & Company.

*"As a catch-all term, the New Way of Working can go in any direction"*

"I'm focussed on three things. First of all, I want to establish my knowledge by writing books, giving lectures and the like. Secondly, I'd like to do something in the field of education in the near future. As a catch-all term, the New Way of Working can take any direction. I think I can make a contribution to that. Thirdly, there are always clients who would like to have a strategic advisor to help them with the switch to the New Way of Working. I'd like to help them with that."

*How does this still relate to the field of facility management?*

"Changing the working environment means redefining the manner in which people deal with each other and with resources. When you talk about dealing with resources, you are talking about Facility Management."

*Aren't you a bit young for the Lifetime Achievement Award?*

Veldhoen laughs: "Well I'm already 56! And I'm not stopping either. This is work that you can always continue to do, it's not done yet. We've actually just begun.

"Interpolis was done in 1996. At that time, a lot of people said that Interpolis would go bankrupt and that Veldhoen & Partners will have an idiotic story to tell. That did not happen. We tailored our organisation to our concept. We engaged organisational psychologists and information analysts. Nobody had that then, and nobody followed this. During the first five years, nothing happened in this market.

"Now everybody is talking about it, but nobody gets it. A lot of companies are introducing a part of 'The New Way

of Working'. But it only works if you implement the concept integrally. If you do not do that, you will only achieve a very small part of what you can achieve. There are still few organisations that understand that integrality and are doing something with it. It has to fit with the organisation's activities, fit with the culture of the organisation."

*What mistakes do proponents of the New Way of Working make?*

"Facility managers rightly see the New Way of Working as an excellent chance to emphasise their importance, but as a result, it becomes much too instrumental in many places. Manuals have even been written about implementing the New Way of Working. In this way, you completely miss the culture of the organisation, the ambition and the work processes. You won't capture that with an instrumental approach. This is how the essence is lost. Then you continue to work in the same way, but with different workplaces.

"Facility managers want to manage everything down to the smallest detail, and that has no place in the New Way of Working. In the ultimate New Way of Working, there are no rules. You can control behaviour through the environment. When you're on holiday, you're cheerful, and maybe a bit boisterous. But the moment you enter a cathedral, everybody goes quiet, takes a seat and starts to reflect. When you go back out, everyone begins laughing and talking once again. You don't need to say it, you just do it. It's dictated by the environment. You can achieve the same thing in a working environment. You can achieve that without rules.

"If someone always sits in the same spot, then you have to arrange for someone else to come in a bit earlier and sit there instead. That way, the other person is challenged to look further, and will discover other, pleasant places to work, that might even be better suited to his activities. You have to help people, not make rules."

*You said that we're at the beginning of the new Way of Working. What recent development has an influence on workplace design?*

"The big movement now is that digitisation is being fully realised and in a few years we really won't use any paper in work processes anymore. We will still use it to write something down or to read, but not to facilitate work process.

"We're definitely going to take that step now, and that makes it essential for all companies to switch over to the New Way of Working. There's no discussion at all about that," emphasises Veldhoen.

## Social media

"What's new now, and this is incredibly interesting, is that we are starting to communicate with each other in a different way. What are new social media going to do with our work? That, for me, is the next step in the thought process. What will this do to urban planning? I find that an



Erik Veldhoen

extremely interesting development. I was a member of the Public Health Council's study commission to research new healthcare planning. We determined that we no longer needed 120 hospitals in the Netherlands, but only 30 or 40. And that we needed to bring small-scale medical care closer to the people, for example by establishing small outpatient clinics for small surgical operations in neighbourhoods. That's a completely different way of working. You need new facilities in residential areas for health care, but also, for example, for the district police, who, together with the justice department and the courts, can organise safety provisions in that district.

"We have endeavoured to scale up over the last twenty years. Again and again, this was linked to the building in which it took place. So that's no longer necessary. That means something for urban planning."

*"In the ultimate New Way of Working there are no rules"*

## Urban planning

"In 1995, we already calculated that we needed only half of the existing offices. Now Zadelhoff has also said that this is the case. For ten years, people said I was crazy. Real estate developers knew how the market worked. The entire country is full of market-standard offices built by people who mainly know how to make quick money. We now have 56 million square metres, and 8 million of that is empty. If all organisations start working according to Interpolis' concept, for example, then we only need 22 million square metres. So those 34 million square metres can be reallocated. That is enormous, and it could become even more. At Interpolis, we took as a basis 14 m<sup>2</sup> per workplace. In the Netherlands, we use an average of 25 to 30 m<sup>2</sup>. However, an Australian company where I introduced a New Way of Working concept last year finds 7.5 m<sup>2</sup> sufficient, while the office looks quite lavish.

"We have to find completely different spatial structures. An office is no longer a workplace, but rather a meeting place. All the office buildings that are so market-standard have actually all become worthless. That's a pity. You will have to invest heavily in these to be able

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to reallocate them. Perhaps these offices are no longer worth the investment.”

*Is the new way of working as you now describe it really different, or is it old wine in new bottles?*

“I always say “back to the future”. Something went wrong during industrialisation, because at that time we began very much to separate living and working, with all the social and societal consequences this brought. The digital revolution, which is having the same impact as the industrial revolution, is going to change the world once again.

“The technological invention of the lift enabled us to build higher in cities, resulting in wider streets in order to let light in. The invention of the steam engine meant that we began building factories, to which we had to go to work. This gave rise to a different type of work, dominated by regulation and administration. Before the invention of the steam engine, 15 percent of the working population worked in an administrative environment. Now that figure is 70 percent. This will be drastically reduced by digitisation. That will lead to our doing work that creates value instead of only supervising what’s being done, and you can do that closer to home once again.

“What used to be the guild house is now becoming a network club. The guild house was there for the exchange of specialised knowledge, while the network club will have a much more

multidisciplinary character, where various specialists can go to find each other and thus contribute value to each other.”

*What is the digital revolution changing about management methods?*

“Through social media, employees are starting to do their work without supervision. Managers would still like employees to do their work under supervision, but that simply isn’t possible anymore.

“It’s still the case that you have to work on a company computer. You’re not allowed to put a memory stick in it and you’re only allowed to use the internet under supervision. That’s no longer possible. The new worker brings his own laptop with him and wants to be able to connect it to the organisation’s network. He builds his own network in addition to the company’s network.

*“Everything that managers do can be delegated to computer systems”*

“The director of the future will only have to make decisions about initiatives that come from bottom up. The director sets the course, determines the direction. Employees will implement that direction themselves by giving a project proposal and sourcing their own

specialists for it. The director will then only have to approve the project plan and budget. That’s a totally different type of leadership. We no longer need managers. Everything that managers do can be delegated to computer systems. The employee can monitor his own time management and the like. The computer will supervise, and give a signal if it isn’t going well.”

*How should we prepare people for this way of working?*

“It starts at the top. Managers have to become leaders, and this is exceptionally bad right now. I’m not that concerned about it on the work floor. My experience is that people are good at handling the freedom they get. Of course, there’s always a group that can’t do that. You have that now and you hold onto that. If you seriously give your employees the freedom to do their own work, then the vast majority will exceed at this.”

*How do you view the future of facility management?*

“Facility Managers have to acknowledge that this is very complicated. You can’t organise this in an afternoon. You can have a fantastic role as a broker and coordinator. The New Way of Working has to do with psychology, administrative science, digitisation, analysis of work processes and workplace design, and all of that has to be connected. That’s too much for one single person. It’s about integrating HRM, ICT, Finance and Facility Management. It really is teamwork.

“The Board of Directors has to define the level of ambition and go through the concept, and then you can get to work. The Facility Manager and HR Manager can prepare this, and also manage the subprojects that require their specific skills during the project.

“For that reason, the Facility Management degree should also pay more attention to issues such as change management, psychology and analytical, social and communication skills. The subject definitely has a *raison d’être*, even if it’s only to properly design and maintain the collective environment,” says Veldhoen.

### CV Erik Veldhoen

#### Personal

Erik Veldhoen, born on 19 July 1954 in Deventer, the Netherlands  
Enjoys travelling to South America, India, Corsica and Australia

Cooking enthusiast: founder and member of the Club Gastronomique Curnonsky Maastricht

#### Education

1976, HTS Bouwkunde, Zwolle

#### Author

The Art of Working (2004, Academic Service)

Versie 2.0 (1998, 010 publishers)

Veldhoen Manifest 01, Ambtenaren aller omgevingen

Kantoren bestaan niet meer (1995, 010 publishers)

## RESEARCH

# Facilities management research in the Nordic countries

by Per Anker Jensen,  
Centre for Facilities Management – Realdania  
Research ([www.CFM.dtu.dk](http://www.CFM.dtu.dk))  
Technical University of Denmark

This article provides a brief overview of the short history of FM research in Denmark, Norway, Sweden and Finland, and presents current research topics and trends in these countries. It is based on information originally collected as part of the planning for the Danish research programme that led to the establishment of the Centre for Facilities Management – Realdania Research (CFM), and updated information from keynote contributions to CFM’s Nordic FM Conference on 22-23 August 2011 by Suvi Nenonen (Finland), Jan Bröchner (Sweden), Geir K Hansen (Norway) and Per Anker Jensen (Denmark).

The Nordic countries, together with the USA, the UK and the Netherlands, are among the internationally leading countries in the development of FM. It has developed as a field in practice since around 1990 in all four countries. During the 1990s, there were research and education activities established in Norway, Sweden and Finland. In Denmark, the establishing of research and education at university level did not start until 2003.

### Norway

NTNU (Norwegian University of Science and Technology) in Trondheim has undertaken FM related research since the early 1990s. From 2002 to 2006, the Faculty of Architecture and Fine Art carried out the ambitious Metamorfose 2005 project ([www.metamorfose.ntnu.no](http://www.metamorfose.ntnu.no)), funded by the Norwegian Research Council, with additional support from Norwegian associations and companies. The main objectives were to develop a research based education and competence environment in relation to Property and FM. Since 2005, NTNU has had a postgraduate masters education programme, a 2 year ordinary masters programme, and a candidate programme in this field. An important step was the establishment of the Centre for Real Estate and Facilities Management. The centre acts as the foundation for a network between education, research and practice, in the area of real estate and FM in Norway, and with universities in other countries.

In recent years, a major project on knowledge work, KUNNE, funded by the national research council and companies, has been carried out in Norway, involving both NTNU and the SINTEF research institute. One aspect of the research has been knowledge workplaces. Adaptability of buildings has been another focus area in Norwegian research. NTNU has also been central in developing a proposal for a research programme for Norwegian municipal facilities management, and the centre has, since 2008, had a 5 year research programme in public real estate and facilities management.

Usability has been an important area of research at NTNU for the last eight years as part of the CIB W111 international research group. A number of case studies have been carried out and many combinations of research and evaluation methods have been tested, in collaboration with public and private organisations. NTNU has

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## Facilities management research in the Nordic countries.

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also been strongly involved in the joint Nordic REBUS project. One of the results of this was the USEtool evaluation methodology developed by researchers from NTNU, together with Statsbygg, Statoil and the county of Sør Trøndelag.

### Sweden

In Sweden, the main centre for FM research is at Chalmers Technical University in Göteborg. Chalmers had done research since the 1980s on reuse of industrial areas, which was relevant to a broader development of FM. In 1996, FM Chalmers was established as a strategic action in collaboration between three schools at Chalmers: Architecture, Civil Engineering, and Technology Management and Economics. The university provided basic funding to build up research for a number of years.

In 2000, the Swedish Council for Building Research (now replaced by Formas, [www.formas.se](http://www.formas.se)) launched the 'Client with customer in focus' programme initiative, which has been important for the funding of a number of FM PhD projects. Chalmers also received funding to develop a masters programme in FM, and the involvement of company partners was required for this. Today, company partners are primarily active as co-sponsors of PhD projects.

According to the historical development of Swedish research in the field, research topics have changed from an initial focus on studies of costs and financial issues, followed by information technology and innovation, space management and briefing, service qualities and satisfaction,

contract strategies, company strategies, and finally FM and environmental sustainability. From a review of published research, it is clear that two heavy topics in Sweden are 'space management and briefing' and 'contract strategies', although there is a wide range of other FM fields that are covered. However, there is no clear time trend that indicates a long-term shift in research emphasis between the eight FM themes.

### Finland

In Finland, research on FM was started in the early 1990s, at Helsinki University of Technology (HUT - now a part of the Aalto University), Institute of Real Estate Studies. Later research initiatives have also spread to other research organisations within the university, for example the Built Environment Services research group (BES - previously known as FSR - Facility Services Research group) under the Department of Construction Economics and Management, and to other universities and research institutions.

Over the last decade, FM research in Finland has mainly developed in three waves. Each wave has had a different driver, and can be identified both as the development of research interest and the changes in the business sector. The first wave of FM research in the 1990s focused on FM services, service development, and production and management of services. The second wave focused more on research about the connection between FM and client organisations. Issues like sustainability, workplace

transformations and added value aspects are examples of the themes in a variety of research projects. The third wave is now focusing on more integrated models, both in the mixed use concepts in different space segments, and in enlarging the service business models, to an area context, for example. Each perspective of research is still valid, but one can identify the different weights in research interests, mainly required by developments in the FM industry.

### Denmark

Before 2003, FM related research in Denmark was mostly technically oriented, with a focus on indoor climate in the 1980s and on energy and environmental impacts in the 1990s. Around the year 2000, there also were some research activities on Whole Life Costing, including a joint Nordic project. In 2003, it was decided to prioritise FM as a new subject of research and teaching in a new strategy for the Department of Civil Engineering (DTU-Byg) at the Technical University of Denmark (DTU). This was based on demand from industry rather than based on internal desires and there were at the time no staff with a background from FM.

The first research project with specific FM focus was called "Facilities Management Best Practice in The Nordic Countries", which included 36 cases from Denmark, Norway, Sweden, Finland and Iceland, divided into 5 main themes. The project started in 2005 and it was finished by CFM publishing a book in both English and Danish versions in 2008. One of the general results in the books was the FM Value Map, which was based on cases as well as a parallel work in a Nordic FM group on "Highlighting the added

value for core business provided by FM". The FM Value Map was a starting point for a EuroFM research group on Added Value and FM, which plans to publish a book on this topic for EFMC2012 in Copenhagen.

CFM started in January 2008 as a national Danish research centre with management placed at DTU's new Department of Management Engineering. The research profile for CFM was defined as:

### Research in

*Space for humans*

*Buildings with use value, and*

*Property and infrastructure, that facilitates.*

This indicates that the main focus of the centre is the interrelationships between physical environments and social activities, and how professionally managed and serviced physical surroundings can support and improve the conditions and activities of humans and organisations. The research themes have developed during the first years and they are now defined as the five themes shown in Figure 1.

### Final remarks

The research in the different Nordic countries has developed based on local conditions and opportunities, but there is also a strong connection between the research environments. Each research environment is very small and vulnerable, so international collaboration is necessary to make sustainable FM research communities. The joint Nordic REBUS project is a good example of such collaboration. CFM's Nordic FM Conference in August 2011 is an attempt to increase the joint Nordic FM research development and our hope is to get funding to establish a joint Nordic Centre of Excellence in FM research. As preparation to the conference, CFM has arranged FM Futures workshop in each of the four countries with practitioners and researchers, which will be followed by a cross-Nordic FM Futures workshop at the conference. Another step towards Nordic research collaboration is a joint application to Nordforsk, to establish a research network on Sustainable FM, which has been submitted recently. This is a topic which is increasingly important in all the Nordic countries.

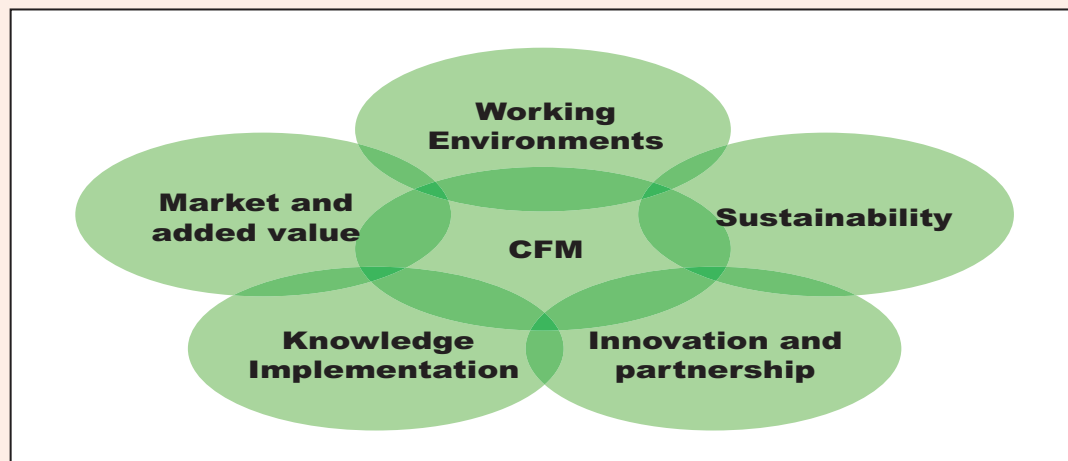


Figure 1: CFM research themes



# **NEXT GENERATION FM**

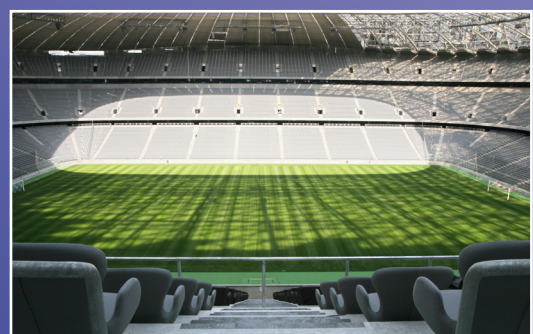
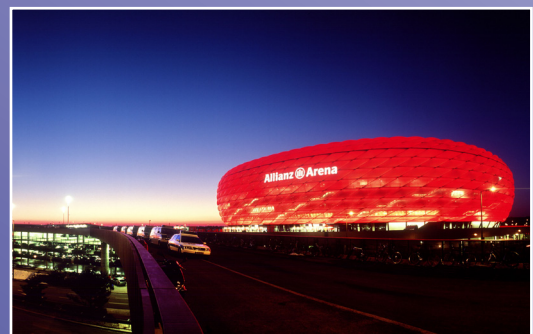
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# National survey - Facility and property management services market in Bulgaria

by Petar Tashev, Yassen Dimitrov and Atanas Georgiev

## Purpose of the survey

The survey aims to show what kind of companies participate in the property and facility management service market, how many and what kind of facilities they are managing, how big are these companies etc. As a professional media concerning the public services development, publics.bg takes as its mission to give useful and high quality information. This could be achieved only with the active participation of experts, who can share their vision and anticipations for the FM sector.

The questionnaire was sent to more than 200 companies and consists of 23 questions which aim to identify the most common services offered by the companies, which of them are in-house and which are outsourced. The survey also has the purpose to show to what extent the companies use modern tools for monitoring the facilities and the FM processes.

## FM in Europe and worldwide

What is common for Bulgaria and most Eastern European countries is the fact that facility management (FM) is a new business sector compared it to some West European countries, where it has been a strategic activity for more than 20 years. Having in mind the wide scope of services encompassed in FM, the companies in Europe and worldwide are trying to consolidate the sector. This is a way to establish and maintain good contact between the companies and FM professionals, in order to share information and expertise between all stakeholders, which leads into the shaping of this sector and increasing quality of the services provided.

The importance of FM for all public and private companies and institutions led to the preparation of EN 15221:1&2 – the first two norms for FM, made by the European Committee for Standardization.

This standard gives the definition of facility management, which is also officially adopted by the Bulgarian Facility Management Association:

“Facility management is the integration of processes within an organization to maintain and develop the agreed services which support and

improve the effectiveness of its primary activities”

## FM in Bulgaria

Facility management is becoming more and more popular in Bulgaria. After an initiative, from the Bulgarian Facility Management Association (bgfma.bg), facility manager was officially recognized as a profession in the Bulgarian National Classification of Professions. Nevertheless many organizations directly or indirectly connected with facility management are not yet familiar with this term.

## The participants (Figures 1, 2 & 3)

In the survey took part 34 companies, mainly property and facility management service providers but also FM bodies within large organizations.

More than half of the respondents manage between 2 and 10 facilities, and the majority manage between 10 000 and 50 000 sq meters of space

Most of the participating organizations operate residential and office buildings – 41% and 38% respectively.

Some organizations also manage educational facilities and kindergartens. Although they represent only small part from the whole, the other companies and the municipalities as well could think more about the professional management of these facilities which are important for youth development. Moreover in Bulgaria there are already cases of office buildings with kindergartens.

The fact that residential buildings are leading as a percentage could be explained with a number of factors – on the one hand the companies which serve the residential sector or the so called housekeeping companies tend to be more active on the market and on the other hand residential facilities represent the biggest part of the building stock as a whole. More and more residential building owners rely on the professionals on the market.

## The most offered services (Figure 4)

The majority of companies offer all supporting services related to the management of fabric maintenance, cleaning and security services. This fact complies with the global tendencies, as these are basic services that almost every

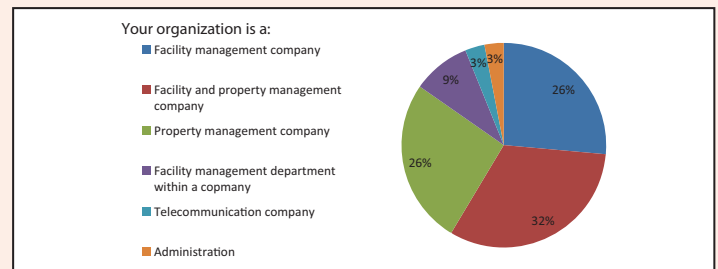


Figure 1

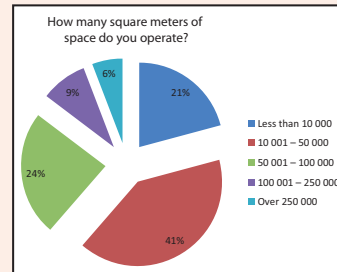


Figure 2

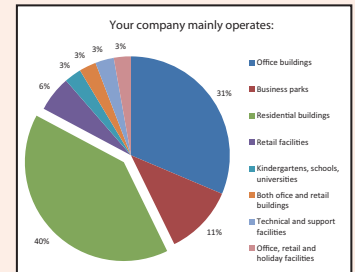


Figure 3

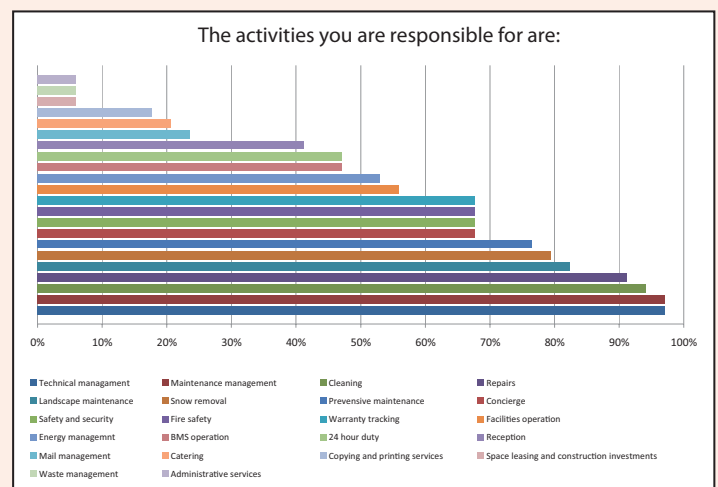


Figure 4

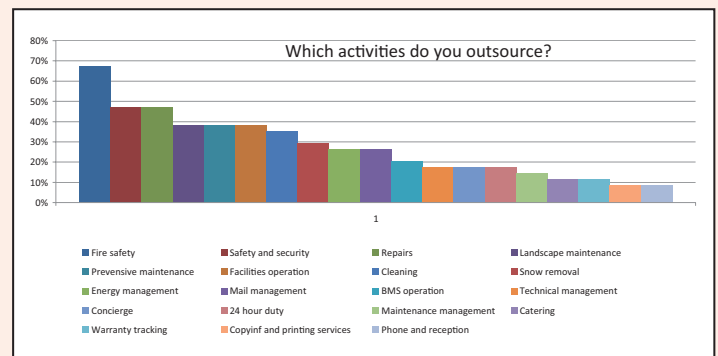


Figure 5

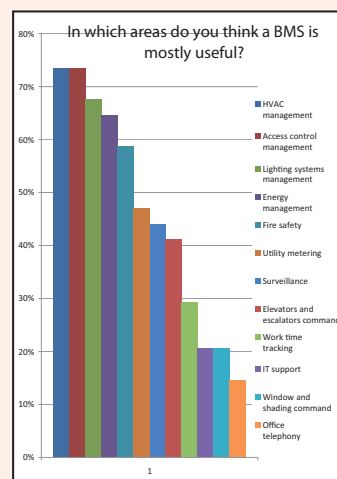


Figure 6

total FM company offers to its current and potential clients. Print & copy, mail management and catering, however, outline themselves as the least popular services.

## Outsourcing (Figure 5)

In terms of outsourcing, the most outsourced services are safety and security, fire safety and landscape maintenance. The least outsourced services are guarantee management, telephone services and reception followed by print & copy services and 24 hour duty. It is noticeable that fire safety is far ahead from the other services in terms of outsourcing which could be explained with its specific nature.

continues on page 7

# National survey - Facility and property management services market in Bulgaria

continued from page 6

## Building management systems (Figure 6)

BMS are becoming more and more common and irreplaceable in building management. Almost half of the survey participants use a BMS despite the big percentage of companies who serve the residential sector, where BMS are rarely needed.

The survey indicates that the areas where BMS are most useful are HVAC control and access control. Energy management and utility metering are also regarded as useful functions of BMS. The vast majority of the survey participants - 85% express the opinion that a BMS would significantly reduce the facility running costs.

Taking into account the energy efficiency requirements of the EU directives and the legal framework in Bulgaria together with the survey results it is clear that BMS systems will be more and more demanded in public buildings as they not only contribute to energy efficiency but also are the tool to measure energy efficiency measures. The presence of a BMS also brings more points when undergoing a certification with sustainability standards such as BREEAM, LEED and DGNB.

## Problematic cases (Figure 7)

The most common problematic cases in the daily operations of the survey participants are issues with owners and investors. This is not surprising as in Bulgaria facility management as a service is sought after the construction of a facility has already been finished. On the other hand the building owners in Bulgaria rarely look at the management of buildings strategically in the long term. According to the data issues with the FM service provider's own personnel are least common.

## Sustainable technology (Figure 8)

Less than 10% of the survey participants use alternative energy sources. On the other hand most of the participants would like to implement green technologies in the building they manage. Nevertheless more than a half of the respondents state that these technologies are too expensive for them to undertake real actions. The legal framework in Bulgaria which makes it difficult to connect building integrated renewable energy sources to the energy grid contributes to their image as being costly.

## Computer aided facility management (CAFM) (Figure 9)

According to the survey is CAFM still not widespread in Bulgaria - only about a quarter of the survey participants use such tools. Nevertheless the vast majority thinks that using software tools for facility management would increase service quality and would lead to better task timing. In this relation the low market

penetration of the CAFM products could only mean that they have big market potential in the coming years.

## FM personnel and qualification (Figure 10)

According to the results the need for hiring new FM employees is relatively rare but a common issue is to find qualified professionals when this is needed.

The majority of the survey participants think that the best way to increase FM professional qualification is the participation in FM courses and seminars. Relatively small part from the survey participants regards the only master degree facility management program in Bulgaria - the one in Sofia University "St. Kliment Ohridski" as a good method for raising FM qualification.

## Goals (Figure 11)

What is common among the survey participants is the aim to increase service quality (80%) and to decrease the running costs of the facilities (56%). Other major goals for the next year are reducing the time for reaction in critical situations, improving collaboration with service providers and workplace improvement improvements.

The survey also shows that increasing turnover is not priority target for the property and facility management providers. From this we can make the conclusion that it can be anticipated the quality FM service to increase in the coming years.

## Customer relations

The majority of the property and facility management providers use alternative channels of communication with their clients. The most widespread way for receiving feedback is through a feedback fill-in forms on the company website. About 1/3 from the respondents use social networks like Facebook, Twitter, LinkedIn etc. for communication with their clients.

## Conclusion

Although the survey doesn't pretend to give a full picture of the property and facility management services market, the authors express their belief that the results can help many companies to see where they are situated among their competitors on the market.

Some of the conclusions which can be derived from the survey results are:

- The market is represented mainly by small companies - the majority operates between 2 and 10 facilities and between 10 000 and 50 000 sq meters of space
- The main goal for most FMs in Bulgaria is to increase service quality
- There is a big potential for the CAFM market - low market penetration of CAFM products, while the majority of the companies on the market express

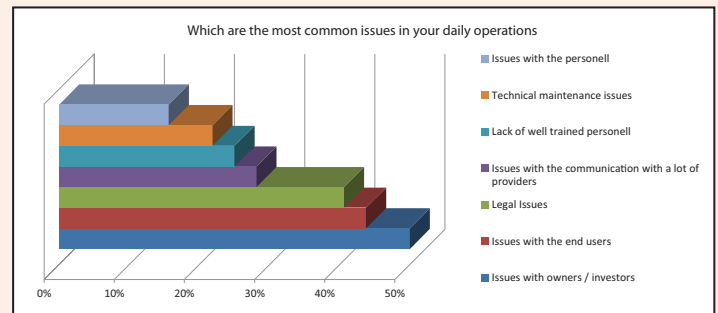


Figure 7

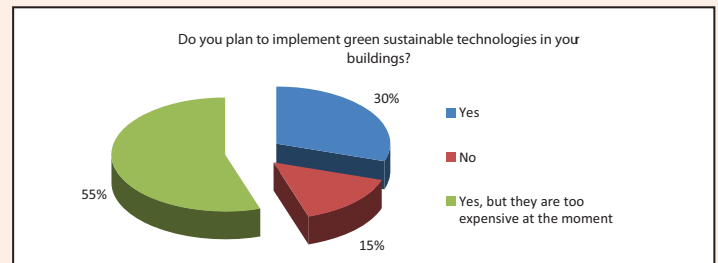


Figure 8

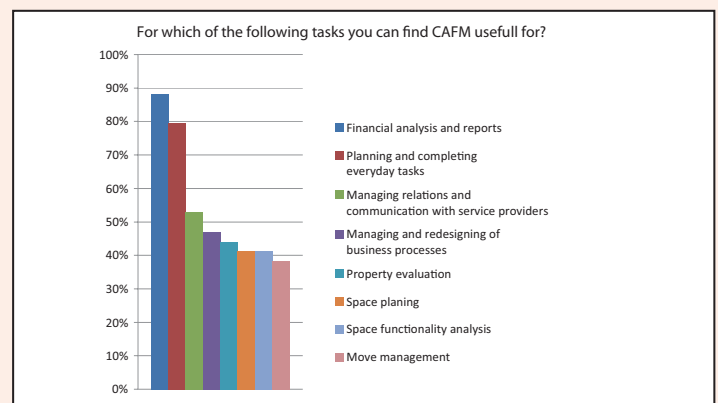


Figure 9

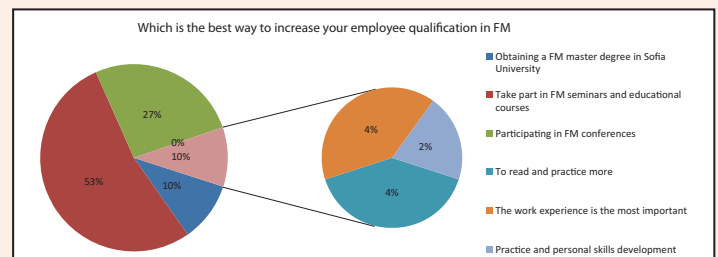


Figure 10

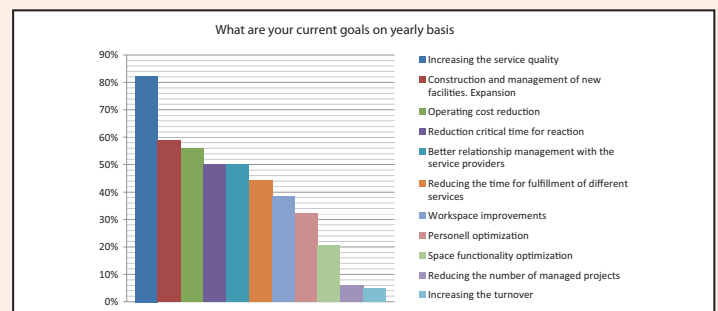


Figure 11

the opinion that using CAFM can lead to significant processes optimization

- In Bulgaria there is a lack of well trained FMs and good educational programs
- Sustainable building technologies are desired but regarded as too expensive

The team of publics.bg hopes that the survey has managed to lay the foundations of a full scope look on the

property and facility services market in Bulgaria and that with the collaboration of the market participants, this survey will become annual. We hope that in the years to follow more and more companies will get involved in the survey.

We await your comments or suggestions for the following editions of the survey. You can use our email office@publics.bg or tel. +359 887 499 443



## Call for Papers

**As part of the annual European Facility Management Conference EFMC 2012, 23rd – 25th May 2012, Copenhagen, Denmark**

Added value is the focus of the 11th research symposium on FM because it is important to document that FM is not just support services representing necessary cost to organizations. FM can provide essential benefits and positive impacts of importance both for corporations' primary activities and society.

The objective of the research symposium is to present original research, which contribute to the understanding of the added value provided by FM and encourage discussions and development among researchers and FM professionals on this important topic.

Who should submit papers: researchers, professors, PhD-students, post-graduate students. The research symposium has been initiated and developed from the Research Network Group (RNG). RNG is a workgroup of the European Facility Management Network (EuroFM). The vision of EuroFM is: "Advancement of knowledge in Facility Management in Europe and its application in practice, education and research, in order to communicate best practice through Europe."

## Themes & Sub-Themes

Added value has many facets therefore research papers are expected from out a broad spectrum. The frame includes social, economic and ecological approaches to the added value provided by FM.

- 1. How can FM contribute to CSR (Corporate Social Responsibility)?** Sustainable FM and CSR • External versus internal CSR focus of FM • Social responsibility for corporations and for FM
- 2. How can added value be managed, evaluated and measured** Value adding concepts • Value mapping • Value chains, streams and network
- 3. From knowledge to value** Knowledge management • Application of knowledge (from theory to practice) • Construction of knowledge in scientific approach
- 4. How can FM contribute to the European research agenda** Possible futures of FM (trends and scenarios) • FM research trends
- 5. Sustainable work environments** Aspects of work organization • Sustainable workplaces • Life cycle management

## Scientific Committee 2012

1. Prof. Theo van der Voordt, TU Delft (NL) • 2. Prof. Tore Haugen / Prof. Siri Hunnes Blakstad, NTNU Trondheim (NO) • 3. Prof. Keith Alexander, University of Salford (UK)
4. Dr. Anna-Liisa Lindholm / Dr. Suvi Nenonen, Aalto University (FIN) • 5. Prof. Thomas Wehrmüller, University of Applied Science Zürich (CH)
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8. Dr. Susanne Balslev-Nielsen, Technical University of Denmark (DK) • 9. Prof. (FH) Thomas Madritsch, University of Applied Science Kufstein (A)
10. Prof. (Ass.) Inês Flores-Colen, Universidade Tecnica Lisboa, Instituto Superior Técnico (PT)

*Committee under the Chairmanship of Prof. Antje Junghans (Chair EuroFM Research Network Group).*

## Organizing Committee 2012

1. Prof. Per Anker Jensen, Technical University of Denmark (Chair Organising Committee) • 2. Prof. Antje Junghans (Chair Scientific Committee)
3. To be confirmed (RNG representative) • 4. To be confirmed (Host representative)

## Important Deadlines

- Abstract submission: 14 September 2011 • Notification of abstract acceptance: 12 October 2011 • Full paper submission: 24 November 2011
- Notification of full paper acceptance: 4 January 2012 • Camera ready paper submission: 22 February 2012 • Presentation submission: 4 April 2012

Additional deadlines such as delivering the title of the presentation, its subtitles, a photograph and the CV of the speakers, will be communicated in due course to those whose abstracts are accepted. An abstract of maximum 300 words should be submitted electronically using only the forms provided on the [www.efmc-conference.com](http://www.efmc-conference.com) web page indicating that it is to be considered as a research paper. All abstracts and final papers must be written in English. The abstract should be as informative as possible and state clearly whether the contributory value of the research for the field of FM is to be considered in terms of the development of theory or practice. The abstract should also include a discussion on the validation and implementation of the research results. Statements such as «results will be discussed» and «data will be presented» will not be accepted. Abstracts and papers can be submitted via the website: [www.efmc-conference.com](http://www.efmc-conference.com). Communication with authors will be exclusively by e-mail. Further instructions on the format of papers will be sent out to authors of successful abstracts.

## Publication and presentation of the papers

The Scientific Committee will undertake a double blind review of all abstracts and papers. Accepted final papers will be published in the EuroFM Research Symposium proceedings with an ISBN number and/or a special issue of the International Journal of Facility Management. Further details can be found on the EFMC web page [www.efmconference.com](http://www.efmconference.com)

## Program

The Research Symposium is scheduled over two days. There will be ample opportunities to network with other researchers and practitioners. Special joint workshops will bring together the Business Conference and Research Symposium on both days. The workshop approach of the sessions would also enable sharing and discussion of research outputs. Submission of the papers is based on the basis that:

- 1) The author(s) will attend the symposium to present and discuss the research, and give permission for the publication of their paper
- 2) Papers present research not previously presented at the research symposium, otherwise present significant updates on previously presented research
- 3) Papers have not previously been submitted for publication in another medium
- 4) Papers are submitted as academic papers
- 5) Accepted Speakers will receive free registration to the Research Symposium and EFMC 2012i (excl. gala dinner). Travel and accommodation will be at speakers' expense.

## Contact person

Prof. Antje Junghans Chair EuroFM Research Network Group EuroFM Network - P.O. Box 5135 – 1410 AC Naarden – The Netherlands [www.eurofm.org](http://www.eurofm.org) Email: [antje.junghans@eurofm.org](mailto:antje.junghans@eurofm.org)

*i Only first authors will receive free registration*

# Facility management at a time of globalisation

by Lionel Cottin, ARSEG

In its first meeting of the year, the ARSEG International Club presented a comprehensive overview of the European facility management market, its major trends, its development potential and its different models, in front of a group of around thirty professionals. The conference was fuelled by the feedback on experience from the company IMS Health, where the deployment of a global FM contract gave rise to many different reactions from the audience.



*The European market is promising; with estimated annual revenue of 11 billion euro in 2008, integrated FM is expected to reach 17 billion euro in 2015. Germany, France and the United Kingdom show significant growth potential.*

On the 10th of February, a group of around thirty professionals took part in the first meeting of the ARSEG International Club in 2011 at Aviva's premises, in La Garenne-Colombes (92). The meeting began with Pascale Mangot-Lagarde, Regional Property Manager at the RBS for Western, Southern and Northern Europe, reminding of the ARSEG International Club's main objectives and activities taking place in Europe and throughout the world, i.e. the sharing and exchanging of good practices among members managing premises in different countries.

## A growing market

Cécile Manzi, Project Manager at Vinci Facilities, presented some of the major trends in the European Facility Management (FM) market – full or partial outsourcing of general services – based on, among other things, the results of the “European FM Market Overview” study, conducted by Frost & Sullivan in 2010. The European FM market is growing, stimulated by the economic restraints placed on both the private and public sectors. This is especially the case for multi-country “integrated Facility Management” or “global FM” contracts, offering the supply and management of all FM services for one client (building and occupants services) by one single provider. This solution meets both the needs of multinational companies in terms of centralisation, standardisation of service levels, and rationalisation of the panel of providers. Integrated FM represented

an estimated annual income of 11 billion euro in 2008, and is expected to reach 17 billion euro in 2015. Within the European Union, the countries showing the most significant growth potential are Germany, France and the United Kingdom. However, integrated FM encounters some difficulties in breaking into the European market, and the continental market especially. The reasons for this come from the difficulties in applying the desired objectives in terms of standardisation and extension of contracts. Thus, although the number of tenders is in strong growth, we sometimes notice that companies revert to insourcing some services.

## Three coexisting models in Europe

By investing resources in integrated FM, a company demonstrates its desire to carry out economies of scale, to reduce the number of providers as well as management expenses, and to standardise service levels. Contracts are generally deployed in accordance with one of the following three models. The “global” model is organised around one single provider, favouring an approach which has been developed uniformly in all countries, with emphasis on the efficiency of centralisation and taking into account the needs of the main structure. The second model, known as the “glocal” model, is based on a panel of five or six providers allowed to adapt according to the sites. This approach is based on “learning” through transfer and adjustment of know-how and processes



*By investing resources in integrated FM, a company demonstrates its desire to carry out economies of scale, to reduce the number of providers as well as management expenses, and to standardise service levels.*

between the main structure and its subsidiaries, with the main structure maintaining the control and an important influence on local organisations. Finally, the “multilocal” model derives from a per country approach, focussing on local needs, taking into account the differences, and giving a great autonomy of subsidiary management. It is characterised by the search for one single provider with a decentralised management approach, and each site being able to choose its partners.

## Feedback on experience

Didier Goby, associate of the purchasing organisation for the Europe, Middle-East & Africa (EMEA) zone of the IMS Health society, then presented the example of deployment carried out in his organisation. This took the form of a per country approach with centralised management. “The assessment processes and methods are the same, even if the politics and services vary from one country to another. Contracts are written in English, as well as in the native language. Choices are made together with the staff, thus enabling them to adapt and carry out the project locally”, explains the Senior Purchasing Manager of the group. IMS Health is the world leader in studies and advice in its field. It is present in 135 countries and has 7,000 employees, 1,200 of which are experts dedicated to health care and medicine. With more than 50 years of experience, the company offers its clients, mainly within the pharmaceutical industry, a wide range of solutions, studies and services, as well as offers of advice and outsourcing to support them on a daily basis in the elaboration of their strategy. IMS Health was bought out at the start of 2010 by the Canadian investment funds institute TPG. Its global headquarters is based in the United States, supported by a “Corporate EMEA” department, with three people covering the initiatives and purchasing plans for Europe. Each person is responsible for a geographical zone and for specific “families” over the whole EMEA zone. Most support tasks which are not directly related to the core business have been outsourced, such as accounts, production of certain computer data, real estate management and general services. Other tasks, such as purchasing and supplier management, are either centralised on a global level or managed on a pan-European level (“glocal”) by

the EMEA team. “There are therefore no longer purchasing positions in Europe at IMS Health, nor general service management positions on a local level, which avoids the tiresome debate of ‘who is responsible for what’”, explains Didier Goby. “With this system, the Financial Director has a key position. In addition to his usual duties, he is responsible for costs and services delivered locally. As a member of the local management committee, he is also the natural interface of the purchasing team at EMEA, to facilitate the implementation of optimisation initiatives, and of his peers, for the level of service delivered.”

## From local to global

The scope of the FM contract includes most of the usual “general service” activities, with regards to management of people services (including vehicle fleet, mobile telephones, transport, general supplies and services to internal clients, and reception, among other things) or management of buildings (including security of the site, cleaning, green spaces, energy management, and removals). It does, however, exclude management of the real estate base (such as rent, choice of buildings, insurances), which is entrusted to a global provider and run from the global headquarters. For this, IMS Health EMEA chose the company Faceo, which has recently become part of Vinci Facilities. The contract covers Italy, the United Kingdom, Belgium and France, and is in the process of being deployed in Spain and Germany. Discussions are currently underway concerning extension to other European countries. Initially local (a contract made and formalised locally by the Financial Director, based on recommendations of the EMEA corporate purchasing service), the organisation has migrated towards a “glocal” model, by creating the corporate purchasing position. All aspects of the implementation strategy, implementation methodology, content of funds, cost model, definition of key performance indicators (KPI), reporting tools, formalisation of local contracts and, of course, choice of provider, are handled by the EMEA purchasing service, to allow an aligned service. “The satisfaction of users, their needs and daily requirements, and the management

*continues on page 10*



## Facility management at a time of globalisation

continued from page 9

of relations between the FM provider and teams, are led by the Executive Assistant of the Top Management, who is



**Didier Goby, Senior Purchasing Manager for EMEA at IMS Health, presented his organisation's global FM contract, the scope of which includes most of the usual "general service" activities, with regards to management of people services.**

a member of the management committee and interface between other Executive Assistants", explains Didier Goby. Issues such as measurement of local economic performance, communication of a major malfunction to the Head of Corporate Purchasing for EMEA, or request for contract modification (new services, for example) are the responsibility of the local Financial Director, in line with the FM site manager and national hierarchy. Discussions with the new shareholder do not rule out the evolution of a completely global approach towards FM, in which the FM provider also covers the United States and other entities in the world. "The purchasing approach of the integrated FM family allows IMS Health a virtuous service in a logic of permanent improvements: synergy for good practices for deployment in other countries; streamlining of procedures and providers; centralised reporting base, based on one single computer tool, allowing synchronisation of contract; costs and cost models; total and increased visibility

for a permanent benchmark; improved services aligned in different countries; better support and better leadership of contracts locally; tangible profits to back this up (reflected in the P&L by management controllers) going from 8% to 20% according to the initial maturity of the site, with high transparency of costs in an 'open book'", ensures the Senior Purchasing Manager of IMS Health.

### The risks of "full FM"

This presentation provoked many reactions from the audience, with several participants pointing out the risks associated with this type of organisation. Such risks include loss of control and knowledge which is important for the management of facilities and services, as well as for the analysis and expression

of real service needs. Indeed, the lack of a professional specialist in operational deployment of FM providers leads to heavy responsibilities and a significant work load for colleagues (Financial Director and Managing Assistants) who are not trained to carry out these tasks, which are added to their main duties. In addition, you are then leaving the keys of the company in the hands of a provider, from whom it will be very difficult, and even impossible, to become independent again. Some participants, who are facing the implementation of global FM contracts, said that it is essential for them to have a strong internal team to lead and control the work within this configuration. This debate is far from over, with all participants agreeing to continue the discussion at the next Club meeting.

### The ARSEG International Club

Any member of the ARSEG association can join the ARSEG International Club for an additional subscription fee (€150 excl. tax in 2011). The Club offers several meeting opportunities throughout the year, and membership also includes subscription to European FM Insight Magazine, the quarterly publication of the EuroFM association, as well as access to the international Global FM association's events and publications.

For more information, contact: [sbogner@arseg.asso.fr](mailto:sbogner@arseg.asso.fr)



## What does 'Life' mean?

by Peter Tse

**Building occupiers can't be certain how long components and systems will really last. With such different guidance available, which one is 'right'. Peter Tse, gives an insight.**

If you want to know how long a boiler will last, where do you start? CIBSE Guide M: Maintenance Engineering and Management is the most widely-used reference document for this topic available in the UK. It provides indicative life expectancies derived from several published sources with additional guidance from a working group of experienced building services engineers.

BSRIA has conducted research for the Construction Industry Life Cycle Cost Analysis (CILECCTA) European research project. The project aim was to create a user-oriented, knowledge-based software capable of full life-cycle cost analysis. The BSRIA deliverable was the production of life expectancy distribution curves for input to the CILECCTA software.

The difficulty with the CIBSE guidance is that life expectancy is provided as a single year, which can't be used to derive a distribution curve. The advantage of a distribution curve is that it indicates the dispersion of data around the mean, with the mean indicating the most likely life expectancy as opposed to a definitive number.

So what other guidance exists? Chapter 36 of the HVAC Applications Handbook includes life expectancies of

mechanical equipment. It is commonly referenced in the US and is the equivalent to CIBSE Guide M.

Also, an ASHRAE research project in 2003 developed an interactive web-based database with a specific focus on mechanical equipment service life. The data is divided into two sub-sets: replaced, for data indicating installation and removal dates, and currently in service, for data with just an installation date. The data indicates mean and standard deviations for the components, yielding distribution curves shown in the graph below. The dataset itself was subsequently analysed, taking year 2010 as the removal date for the currently in service dataset and combining with the replaced data to generate an ASHRAE dataset curve, also shown in the chart below.

The only other publication that provides data to generate a distribution curve is Surveyors' Experiences of Buildings in Use, published by the Building Cost Information Service (BCIS). The publication collates the responses from 92 individual building surveyors on the life expectancy of common building components.

Additional sources, including the Kirk & Dell'Isola publication Life Cycle Costing for Design Professionals,

provide a single year expectancy charted as a single line (similar to that in Guide M). Other publications, such as The Longevity of Building Services Installations and the Building Services Component Life Manual published by the Swedish Building Research Council collates data from various publications and indicates life expectancy as data ranges.

BSRIA has analysed all of these and then generated a composite curve was generated from the average of the curve data for each component. This was weighted evenly between the sources, and added to the graph as the CILECCTA curve for the software tool.

So, how long will a boiler last? Well, the general overview of the CILECCTA curves of M&E components indicate a mean life expectancy of just over 20 years for most of the components. Although many commercial buildings have a design life of 50 years, it is more common for the useful life to be around 25 years when a major refurbishment would be required to bring a building up to date. The research also suggests that building services refurbishment should coincide with any refurbishment of the building fabric. This correlation could also assist commercial leasing decisions.

One component that shows a significant deviation on longevity is lighting fixtures. The BCIS data indicates life expectancy around 12 years, while the other data sources indicate a higher life expectancy. Unlike many M&E components, light fixtures are highly visible to building occupants, so light levels and distribution are also readily apparent and any deterioration is quickly detected.

Many of the reference sources reviewed for CILECCTA provides indicative service lives for components, which comply with good practice

in design and installation, normal maintenance and typical exposure and usage. As these conditions are unlikely to be replicated exactly in practice, service lives will need to be adjusted to represent the likely in-service conditions. BS ISO 15686 tries to address this by applying a range of factors to a reference life expectancy accounting for quality of components through to in-use conditions.

The study does not address renewable energy systems that currently do not have substantial data for life expectancy.

A common term in reliability studies is Mean Time Between Failure (MTBF). This is the predicted time between inherent failures of a system during operation, and a good supplementary indicator of life expectancy. However the definition of MTBF means that it cannot be directly related to life expectancy as illustrated by the following example.

A battery may have a five hour life expectancy but a MTBF of 100 000 hours implying that in a sample of one million batteries operating simultaneously, there will be 10 failures per hour during the expected five hour life of the sample set. MTBF is therefore linked more to production, manufacturing and maintenance quality rather than to the inherent life expectancy of a single installed item.

While the research results are interesting, they highlight a lack of datasets for building services components, especially data that accounts for all the various factors addressed in BS ISO 15686. BSRIA plans to work with its Operations and Maintenance Benchmarking Network to develop its own database.

*Peter Tse is a senior design consultant with BSRIA*



# Noise in the office: Please Disturb?

by Sandra Hoffmann

**Noise is the number one source of disruption in the office. Noise in the office, which disturbs workers to varying degrees, comes from a very wide range of sources. The predominant source of disruption is speech, closely followed by the ringing of telephones and office equipment. The degree of disruption depends on the sound level, the type and duration of the noise, the reverberation time, and the nature of the task in which the workers are engaged.**

In room acoustics\* everything revolves around hearing conditions in the room being optimally adapted to the manner of utilisation – and the question of which materials and/or surfaces influence these hearing conditions. What must be taken into account is that everybody perceives sounds subjectively, i.e. the individual's personal attitude plays a major role. Someone accustomed to a private office, for instance, will have a hard time moving into an open space office, even if, theoretically, there was no major change to the acoustic conditions in the room.

The actual pain threshold of the human ear is 140 dB, though even 80 dB(A) of continuous noise or 130 dB(A) of impulse noise can cause irreversible hearing damage. That is why the maximum allowable acoustic pressure level is defined by regulatory standard and maximum limits are also recommended for background noise levels. Anyone wishing to reduce the noise level at the office should ensure that office equipment or ventilation systems do not exceed a certain level. Also, the number of noise sources should be reduced to a minimum, as the more noise sources there are, the higher the acoustic pressure level in the room.

A further step is to muffle the direct noise. Noise radiates spherically in all directions. Direct noise refers to sounds that reach the ear directly from the noise source. The farther the distance between the two, the lower the acoustic energy that makes it to the ear. However, the distances between individual workstations in an office are rather short, which is why stopgap measures are essential. "Direct noise is easily muffled via direct obstacles, such as partitions. Closed,

ceiling-height obstacles are most effective of course, but a half-height partition also lowers the noise level by up to four or five dB," explains Dr. Christian Nocke, CEO of the Akustikbüro Oldenburg, in connection with the acoustic seminar organised by buero-forum, the platform of the association of the German office furniture industry. The effect, he says, is mainly evident in the higher frequency range. "Every frequency has a certain wave length. The frequencies which are relevant to room acoustics are in the range of 100 to 5,000 Hertz. A 100 Hz frequency radiates across 3.40 metres, the latter only about 7 cm. That means that high frequencies in particular fall within the scope of the dimensions of rooms or furnishings, and can be easily screened out."

## Reverberation off of walls

In addition to direct noise, another phenomenon plays a major role: reflected and scattered noise. In a closed room, the ceiling, floor and walls reflect muffled sound waves back into the room, which further raises the volume. The extent to which the surfaces muffle the noise depends on how they are constructed and/or the use of noise absorbers, though a certain amount always reaches the hearer, delayed, in the form of reverberation. The 'reverberation time' refers to the time that noise takes to decay by 60 dB in the room. As a general rule, if the reverberation time is short then speech intelligibility is high. Use of space is decisive for an optimal design, since a concert hall requires different reverberation times than a conference room does.

Reverberation time largely depends on room volumes, surfaces and furnishings.



## Increase in acoustic pressure from two different noise sources

First, the difference between the two noise levels must be ascertained. This determines which column to refer to. In the second step, the amount of the noise level increase given in the second line of the corresponding column is added to the higher of the two noise level values.

Difference between 2 noise levels	0 to 1	2 to 3	4 to 9	more than 10
Noise level increase (add to higher noise level)	+ 3 dB	+ 2 dB	+ 1 dB	+ 0 dB

Example: In the case of two noise sources of 50 dB and 57 dB respectively, the 7 dB difference results in an increase of 1 dB, i.e. added to 57 dB this yields a total noise level of 58 dB.

Source\*\*

## Increase in acoustic pressure from identical noise sources

When the number of noise sources is doubled this always yields a noise level increase of 3 dB, 10 dB when multiplied by ten, and 20 dB when multiplied by 100.

Example: Two identical copiers, each with an acoustic pressure level of 62 dB, are installed in an office. The acoustic pressure level that they generate in total equals 65 dB (62 dB + 3).

Source\*\*

## Reverberation times in an office

Conference room:	depending on size, approx. 0.8 to 1.2 seconds
Office room:	depending on size, between 0.5 and 0.8 seconds

Generally, the bigger the room, the longer the reverberation time. Likewise, the more noise absorbers in the room, the shorter the reverberation time. The shortest reverberation time, however, is not always the best in an office. As the reverberation time goes down, speech intelligibility goes up, but also the level of disturbance from co-workers. For evolutionary reasons, the human ear is especially sensitive within the range of speech (250 to 2,000 Hz). This is why speech is the biggest distracter in the office, even if it is not in one's native language. The art of office room acoustics is therefore to improve speech intelligibility in those areas dedicated to communication and mutual understanding. In areas where concentration is required, on the other hand, the task is to reduce speech intelligibility

through 'appropriate background noise' as required.

You can learn more about the topic of noise reduction in the next workplace issue.

\* *Not to be confused with building acoustics. Building acoustics deals with noise transfer between adjacent rooms, i.e. how much noise comes from the next room. Room acoustics, on the other hand, focuses on the noise situation in a single room. It also looks at the 'audibility' within a room.*

\*\* Source: "8. Raumakustik – Akustische Bedingungen am Arbeitsplatz effektiv gestalten" – Series of publications by buero-forum in bso, Verband Büro-, Sitz- und Objektmöbel e.V.

## Levels of noise pollution in the workplace

Information regarding the maximum allowable acoustic pressure level in workplace rooms can be found, among other places, in VDI 2058, to which reference is also made in VDI 2569. These values pertain to the assessment level:

$L_r \leq 55$  dB(A) for mental activities

Examples: scientific work, design, evaluation, calculation, discussion, etc.

$L_r \leq 70$  dB(A) for simple or predominantly mechanised office activities

Examples: planning, data acquisition, working with word processing devices, sales, working in administrative offices

Irreversible hearing damage can be incurred at a continuous sound level of 80 dB(A) and up, and at an impulse sound level of 130 dB(A) and up.

Type of room	Highest background noise level
Conference room	30 to 35 dB(A)
Individual offices	30 to 40 dB(A)
Open-plan offices	35 to 45 dB(A)
Industrial workplaces	65 to 70 dB(A)

The table shows values for the recommended background noise level pursuant to DIN EN ISO 11690. Background noises are low-information noises (e.g. ventilation systems, printers, street traffic), which impact audibility in the room.

Source\*\*

# The care and keeping of cultural facilities

by Angela M. Person



**Cultural institutions, regardless of size, present unique challenges to those tending and mending their facilities. From housing precious collections to hosting thousands of guests, maintaining the invaluable and often fragile nature of these important environments requires a team of well-trained individuals who are just as comfortable problem solving as part of an integrated team as they are trouble-shooting on their own.**

The Office of Facility Management and Reliability, at the Smithsonian Institution in Washington, D.C., represents one such team of individuals. Together, OFMR's 850 full-time staff members work to keep 12 million square feet of museum exhibition and research space—as well as the Smithsonian's vast acreage—pristine and operating smoothly. This benefits the 136 million artifacts carefully kept in its museums' collections, as well as the 30 million visitors who enjoy visiting the Smithsonian campus each year.

OFMR Director Nancy Bechtol credits the presence of her in-house maintenance and operations staff for their ability to "keep the show on the road" amidst an often challenging environment comprised of both ongoing preventive maintenance and active corrective maintenance related to the presence of aged facilities constructed over a century ago and the inherent wear and tear of such high traffic levels.

"By engaging in this multi-faceted maintenance system, the OFMR team makes unmistakable contributions to the Smithsonian's overarching mission to support "the increase and diffusion of knowledge," Bechtol said.

## A wide scope of responsibility

The Office of Maintenance and Reliability's support of the Smithsonian's mission is further reinforced by the myriad roles it plays that extend beyond the preventive and corrective maintenance services it provides the organization. For example, over the years OFMR staff has found themselves transporting endangered animals at the National Zoo, staffing elaborate special events and putting the final touches on significant SI exhibitions.

Bechtol recalled one particular instance in which a Smithsonian donor took a final walk-through prior to the opening of an exhibition he was sponsoring.

"The donor felt that his name appeared too small on the exhibition sign and asked that it be enlarged."

With fewer than 24 hours before the exhibit opened to the public, the existing elegant signage had to be resourcefully edited so that a larger iteration of the donor's name appeared—without drawing attention to the fact that the new name was a last-minute change.

"These are the sorts of things that keep us [OFMR] networking with other

Smithsonian offices, like the Office of Exhibits Central," said Bechtol.

By working all night, OFMR staff—who have their own large format, high-quality plotter—helped OEC finalize the exhibition signage to both the donor's and curators' satisfaction. Such challenging, time-sensitive situations allow OFMR staff to constantly meet new people and discover new capabilities.

Discovering new capabilities is something that OFMR Zone Manager Dan Davies' team has grown accustomed to. Davies manages one of the Smithsonian's eight operational divisions, or zones—the Upper Northwest Zone, which includes both the National Zoo in Washington, D.C., and the Smithsonian Conservation Biology Institute in Front Royal, Va. The National Zoo alone is comprised of more than 100 buildings and structures and is occupied by over 2,000 animals, many of them members of endangered species. In addition to maintaining their facilities, the UNWZ zoo team takes on a myriad of roles related to animal welfare. For example, any time an animal needs to be moved to another location, all crate handling is done by OFMR staff.

"Handling the animal crates requires an understanding... those involved must not get excited or nervous," Davies remarked about the nature of working with the National Zoo's sensitive living collections.

The OFMR team's multi-faceted role in zoo activities recently saw them partnering with the National Zoo's curatorial staff to solve a unique dilemma. Together, they engineered, designed and fabricated a crate with an integrated life-support sling system that could accommodate a 5,000 pound hippopotamus on its cross-country voyage from the National Zoo to its new home at the Minnesota Zoo.

Located on the Chesapeake Bay, the Smithsonian Environmental Research Center Zone also must accommodate animal occupants. SERC conducts extensive research on complex environmental issues, especially those impacted by human activities at the land-sea interface. While SERC is the location of significant environmental research, it is also home to hundreds of deer on its 2,800 acres. Despite its size, the SERC land mass simply does not have the carrying capacity to accommodate its ever-growing



deer population. This being the case, Zone Manager Jeff Ridgeway and his team must carefully coordinate an annual deer hunt. This deer hunt is organized through a lottery-based permit system, allowing approximately 200 hunters per year to help control the deer population on the SERC land.

It's certainly apparent that no two Smithsonian Institution zones are the same.

Bechtol noted that, "the variety is satisfying here," and OFMR Deputy Director Richard Day's experiences reinforce Bechtol's assertion. Nodding to this variety, Day described an experience when, as building manager of the National Museum of American History early in his career, he and his team took on an integral role in rigging and moving the John Bull steam engine, a massive piece of the NMAH collection that dates back to the 1830s.

"This experience really validated my staff and me—we trained as riggers in order to learn how to do it in a very scientific way," Day said.

The fruits of their rigging efforts enabled the Smithsonian to commemorate the John Bull engine's 150th anniversary with a spectacular feat. Day and his staff moved the John Bull—which weighs in at an impressive 10 tons—from the museum floor to a stretch of railroad near the Potomac River in Virginia to be fired up once again.

"The fire billowing out of the stack was incredible," Day reminisced.

## Special events and associated needs

In addition to aiding in special Smithsonian projects such as the reincarnation of the John Bull engine, OFMR plays a key role in facilitating SI's frequent and varied special events.

"Special events take a big toll on our staff and present a challenge, because we have to set up, provide service, clean up and break down these events so that the museum is ready to reopen on time the next day," said Angel Rodriguez, zone manager for the West Mall Zone, whose primary responsibility is caring for the recently renovated National Museum of American History.

Along with the preparations required for the museums' special events traffic, national holidays such as the Fourth of July involve extra planning to accommodate the large quantity of additional visitors. For example, Rodriguez estimates that 120,000 people passed through the National Museum of American History on the Fourth of July alone this year. Another event that challenges facility staff at the Smithsonian is the presidential inauguration. Inaugurations are national celebrations and for many visitors, the inauguration itself is frequently incorporated into an extended

stay in Washington, D.C.

During the recent renovation of the National Museum of American History, several decisions were made about finishes that create challenges for facility staff. The renovation incorporated steel and glass surfaces throughout the museum and the high visitor numbers contribute to what Rodriguez calls his biggest challenge—keeping his sparkling glass and steel-clad museum clean despite the heavy use the building gets.

While the oft-fingerprinted glass and steel at the National Museum of American History presents major challenges to Rodriguez and his team, John Bixler, zone manager of the East Mall Zone, has his own unique set of issues to keep up with. The East Mall Zone is home to the National Air and Space Museum, which sees some of the Smithsonian's heaviest traffic. Combine this heavy traffic with the fact that NASM also houses a national fast food chain location and you can see why it is a challenge to keep the outdoor area neat and tidy. Many of this chain's children's meal boxes do not find their way into trash receptacles, presenting a constant issue for building service workers aiming to keep the outdoor area pristine.

The South Mall Zone, managed by Maurice Evans, encompasses a wide variety of unique challenges as well, due in part to the diverse age range and types of buildings found in the zone. For example, a portion the South Mall Zone called the Quadrangle is 96 percent underground and houses the National Museum of African Art, the Ripley International Center and the Arthur M. Sackler Gallery.

Some of the key issues that Evans and his team must navigate include the difficulty of regulating indoor air quality three stories underground, the inherent difficulty of expanding underground facilities and the presence of their beautiful green roof, the Enid A. Haupt Garden.

Referring to the Haupt garden, Evans asks, "How can you replace a roof in this case?"

It would require that the popular garden be completely removed during the re-roofing process.

Evans also faced a challenge when the design of a new exhibition slated for the Hirshhorn Museum and Sculpture Garden—which houses modern and contemporary art—was found to include a water feature with which the visitors could interact. That situation not only challenged the facility team from the standpoint of introducing excess humidity into a gallery displaying art but also from a safety and liability perspective.

The sensitivity to maintaining the integrity of the museum's collections—

*continues on page 13*



# The re-foundation of Venice

by Mariantonietta Lisena

**The artistic heritage of Venice and its lagoon is among the finest in the world. The city's assets demand proper management and conservation, which is why an association has been formed to unite its twelve museums. The association is run according to the principles of Facility Management, as its director Giandomenico Romanelli explains: "This model has allowed us to create a supple, flexible organisation that involves and incentivises suppliers, thus optimising services, all to the benefit of the public".**

For several years now, there has been talk of how to bring Facility Management into organisations and establishments other than conventional offices. However, if we take a good look around us, we might find several things that surprise us, and give new meaning to the current debate: for example, the fact that, in certain sectors, not only has FM been in existence for several years, but has also been applied according to models which, in many cases, are revolutionary, and far more innovative than those commonly employed by ordinary companies.

This is the case of the Venice Foundation of Civic Museums, whose Facility Management model is one of the most shining examples of how FM is not only a cost item, but a discipline which can create value and wealth for those organisations which are best able to exploit its potential. Giandomenico Romanelli, Director of the Foundation, explains how this has been possible.

*Tell us about your organisation.*

The Foundation was set up so that the twelve museums of Venice, and some of Italy's finest historic and artistic assets in general, could be run by a flexible organisation with decisional autonomy, long-term planning capability and private-sector type management. Up until last year, that organisation took the form of an office at Venice City Council, but following the decision to make that office independent, the Foundation was created.

*How was that decision reached?*

There were the advantages of being able to rely on a less bureaucratic organisation with greater flexibility and freedom of movement, but it was more than that. The group of museums managed by the Foundation receive income from ticket sales, which meets all their operating expenses. From many angles, this is the only situation of its kind in Italy and is also quite rare at international level. What is even more astonishing is that the Foundation has a healthy bank balance even though it also manages five specialist libraries which generate costs, but no income at all. Our organisation has been financially sustainable for many years, and paradoxically has even had to hand over part of its profits to finance council works. That is why, in agreement with the city council, the decision was taken to make the Foundation independent.

*How did this ideal scenario come about?*

From a combination of factors, which came together to form a kind of 'perfect storm'. It is important to bear this in mind when we ask ourselves whether the Foundation's model can be applied 'as is' to other museum organisations. The situation that has arisen in Venice is very different from that in most other cities of art.

However, I must say that not everything is down to chance or external factors – specific strategic decisions have also played a part. Years ago, when we had to accept the fact that the council could no longer guarantee the replacement of staff, we chose to see

the opportunities we could obtain from the situation rather than protesting about it, and decided to let the non-renewal of personnel result in a 'zero workforce', and then resorted to outsourcing. That in itself was not a revolutionary decision, because many museums employ staff provided by external contractors. It was the type of agreement reached with those contractors that was special.

*In what sense?*

We wanted the winning contractor to be remunerated not according to a fixed rate, but only with a percentage of the revenue from ticket sales. Our intention was to raise the personnel contracts to the level of partnerships. Our approach has radically transformed the objectives of the winning contractor; it was no longer merely about providing a certain number of services in order to collect a pre-determined figure, but about guaranteeing that those services worked perfectly and making every effort to ensure that our museums generated more revenue. All this happened ten years ago.

*How has the model evolved since then?*

First of all, these ten years have been useful in allowing us to carry out a wholesale review of our services. Some have been eliminated, others unified, and in general there has been a painstaking process of optimisation, intended to reduce outgoings considerably and increase the efficiency of the whole system.

A decade of experience has also led us to make certain changes to the contracts themselves, and the most important of these is the division of the services we outsource. Before, they were outsourced en masse, but now, partly to increase the level of specialisation, they have been organised into three separate areas. Today, there is a contract for the supply of IT and logistics tools, and the coordination needed for the efficient operation of the basic services (ticketing, security, cloakrooms and so on), a contract for management of the bookshop, and another one for catering.

*What types of contracts have you used for the bookshop and catering services?*

The suppliers pay us a set quota. After the income generated by the bookshop and cafés has covered the sum paid to the Foundation, the contractors have the right to keep a percentage of any further profits earned from their operations.

*Has the personnel contract remained the same?*

Broadly speaking, yes. The supplier receives no set remuneration, but has the right to keep 52% of the income generated from ticket sales. You could argue that, under that type of arrangement, the contractor has no levers to increase the museum's income, or his own – but that is absolutely not the case. In the first place, he can maximise the quality of his services, and make visiting the museum a unique experience for the public. Contractors are also encouraged to make suggestions about cultural issues which could help to boost visitor numbers. This is why I mentioned our intention to raise the quality of our relationship with the contractor, who is not only required to provide a service, but also to fully understand the nature of what we do, and to take that on board by making active contributions and offering real suggestions for the success of

our core business.

We have been lucky enough to find a partner interested in this type of collaboration, who has met our standards. We are very aware that this might seem a risky type of agreement. A few years ago we had a mini-crisis, when visitor numbers fell by 30%, and our contractor at the time also felt the effects of that. However, the excellent profits he had made previously meant that he only suffered marginally from that difficult time.

This was possible because our model is elastic enough not only to minimise the impact of a slump in business on us and our suppliers, but also to give both parties earning opportunities which are much greater than in traditional contracts. Obviously, this depends on the supplier being prepared to take a risk and play an active part in meeting our objectives.

*How many people, counting both internal and external personnel, are employed by the Foundation and the services it operates?*

There are about 300 employees on site, provided by the winning contractor. Added to these are 30 people who work in the bookshop and catering services. About 70 people are employed directly by the Foundation, and they are spread equally between two areas: the first relates to cultural activities such as conservation and curating the works of art, while the second comprises administration and contract management.

*Do the external personnel need specific training?*

Museums are special places and should be treated as such. This is why we ask our suppliers to provide our employees with regular training, and we carry out strict controls to ensure that that training is effective, partly because staff come into direct contact with the public, and are therefore in a delicate position. The same applies to the extra services such as the bookshop and cafés, as all these things contribute to the visitor experience. The public, quite rightly, have little interest in whether the staff or cafés are managed directly by the Foundation or by external contractors. For the public, everything inside the museum is part of a unique experience, and on the basis of that experience they decide whether or not to return, or whether to recommend the museum to other people. That is why every service has to be delivered flawlessly, in order to build a relationship of trust with the visitors.

*In your opinion, can the Foundation's model still be improved on?*

Of course, there is a lot of room for improvement. We have not yet reached the level we hoped to attain, and perhaps it will take us many years to get there. Over the past thirty years, the world of museums has evolved constantly. If we want to keep growing, it is important for us to understand the present situation and interpret it as best we can. Today, a museum is an organisation that should be managed according to the principles of a private business. To make sure that the business operates at its best, we need to think of ourselves as managers before art experts. Unfortunately, this is a lesson that, in Italy, we are still finding it hard to learn.

## The care and keeping of cultural facilities

*continued from page 12*

both living and otherwise—is integral to the Office of Facilities Management and Reliability's success within the Smithsonian.

"We get a lot of credit for being heroes and it's really pretty easy," Day said. "But you know what the hard stuff is? Doing the everyday work that prevents catastrophes and keeps everything going."

### The importance of maintaining cultural institutions

Cultural institutions play many roles in the story of a society, regardless of the country or region. Though some may house art, display collections or support research and education, the facilities that house cultural institutions face many challenges in their ongoing efforts to educate, inform and entertain their constituencies and visitors. Managing these buildings and

grounds in ways that satisfy the collections, visitors, staff and facilities is what facility management teams in cultural institutions face every day.

Each facility has its own story and challenges. Some truly unusual facility challenges are faced on such a routine basis that facility teams in cultural institutions take these situations in stride. They do the work and continue preparing for the next day or event. Think about the facility management at your museum, performing arts center, library, archives, historical site, art institute, theater, symphony hall, garden, landmark site, aquarium or zoo. How does your facility team keep everything going smoothly for your cultural institution?



# EuroFM Reports

## Out and about with the Chairman

**Wayne Tantrum,  
Chairman EuroFM**



I hope you are all well and looking forward to your summer holidays as much as I am! I really believe that we need to get the

work-life balance correct (especially in the hectic world of FM), so enjoy your break, as I'm sure you deserve it.

EuroFM and your Board have been very busy over the last 6 months, and have been engaged in lots of different activities to promote our members' interest.

### Vision 2020 & Strategy 2011-2013:

In January, the Board prepared a discussion paper entitled "Vision 2020 & Strategy 2011-2013", in order to stimulate debate about the future of EuroFM, and where we want to take the organisation over the next 5-10 years. We presented this at the Members Meeting in Brussels in February 2011, and it is fair to say it was greeted with mixed reactions and responses. The reason for this, in my opinion, is that EuroFM has its strength in the fact that we are a rich (but complex) network of professionals, academics and educationalists, and therefore all have different views as to where EuroFM should be in the future.

For me, this is a good position to be in, and the document had its effect to stimulate the debate about the future. So we agreed to circulate this document and invite feedback, so that we could consolidate this and present it at our conference in Vienna in May.

Unfortunately, we had only received 3 official responses by the time we arrived at the conference, so with this in mind, I convened a special meeting in Vienna to discuss this and agree on the next steps.

We agreed that this topic deserves serious debate and that more feedback should be sought. So I personally sent a note to all member organisations to ask them to:

1. Provide constructive feedback on the discussion paper by the end of June 2011
2. Nominate task force representatives designated by member organisations

It was also agreed that the task force would take on the following responsibilities:

- To select a nominated leader within the group who will drive this project

- To review feedback received from all the members and use this as a basis of ideas to formulate the "Vision 2020 & Strategy 2011-2013" that meets the needs of all current and future members

- To evaluate all possibilities of how we ensure the financial security of EuroFM

- To prepare a proposal document for the future direction and strategy of EuroFM, taking into account the membership's diversity (PNG, RNG, ENG and CANG) and ensuring stability and financial strength for the next 25 years

- To have this document ready by the 3rd of October 2011, in order for the Board to debate this prior to the November General Members Meeting.

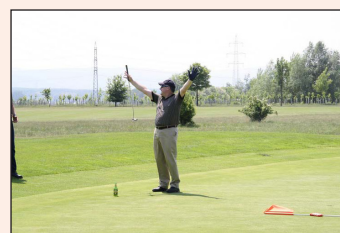
This is a really important time for EuroFM and we have the opportunity to ensure we develop our association for future generations of facilities professionals to enjoy. Therefore, I look forward to the development of this paper.

### European Facility Management Conference (EFMC) 2011

Before I wax lyrical about the conference and how it is the most significant, all-encompassing educational and networking event for Facility Management professionals in Europe, I need to say a big thank you to all the people who were involved and helped to deliver EFMC 2011.

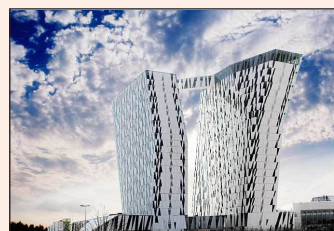
"You know who you are and you should be very proud of yourselves for delivering, in my opinion, an excellent conference. Thank you"

I arrived over on the Saturday in preparation for a charity golf day organised by TU WIEN, in aid of the IFMA foundation and the EUROFM Student Awards. The weather was hot and so was some of the golf, as you can see from this picture of Tony Keane (CEO of IFMA) sinking a 15 foot putt.....



More importantly, we raised €1,800 for both causes, so a big thank you to all involved with this.

The conference kicked off with a Chairman's View, held at the Weingut am Reisenberg. It was a short trip outside of Vienna, but the views back into the city were truly amazing.



Francis Kuhn (Chairman of IFMA) and I gave our opinion of the challenges and opportunities that face our profession across Europe. We covered the current economic climate and our role as facility managers, we toasted the students who had travelled from various European locations to share their ideas on FM, and we encouraged the attendees to enjoy the next few days, but also to take away ideas that will add real value to their organisations. It was also an excellent opportunity to start the process of catching up with colleagues and friends from around the globe in a relaxed setting.

The conference was held in the stunning location of Vienna at TU WIEN University of Technology. Temperatures soared to over 300°C during the period of the conference, so not only were we spoilt with presentations demonstrating innovation, best practice and value creation, but we also had the opportunity to enjoy all the delights that the beautiful city has to offer.



EFMC combines a business conference with a research symposium, and the plenary sessions were held in a large marquee outside for the business conference and in the magnificent Kuppelsaal room for the research symposium, where the exposed timber roof beams and trusses are simple stunning.

This year's theme was "Cracking the Productivity Nut", a topic that plays an important part in demonstrating added value in Facility Management. This conference was also different as we strategically organised it to take place side-by-side with the Austrian National FM Conference (ATGA Congress). This we did to exploit synergies and increase networking opportunities, which I believe we achieved.

Daniel Rasmus, a strategist from the USA, opened the conference with his view on modern management, and made the point that we are far too concerned with productivity and should focus instead on the knowledge economy.

It was then time for the various sessions which took place over the two days and included topics such

as: Workplace Design Management and Use; FM Debate of the Year; Creating Communities; Productivity Management; FM as a Factor of Production; FM Positioning and Strategy; Optimisation and Lean Management. There was something for everyone, and I hope you had the opportunity to take away some real value creation ideas.



One of the highlights was the FM Debate of the Year. This was thought provoking, and I commend Bernard Drion, Associate Professor at NHTV Breda University of Applied Sciences in the Netherlands, who entertained us with his energy and a number of propositions around management of services, customer journey, hospitality, trust, and workplace.

EFMC and the associated events such as the Chairman's Reception, Gala Dinner, Student Poster Gallery and Exhibition all offer a platform for networking with delegates and speakers, as well as students, educators, professors and researchers. This year was no different, as we had a global representation of over 500 delegates from across our industry, so the opportunity for networking was extremely rich.

### Gala Dinner & Awards

The Gala Dinner and the 5th Annual EuroFM Awards were held in the magnificent Rathaus, or Vienna Town Hall. This building was designed by Friedrich von Schmidt in the Neo-Gothic style, and built between 1872 and 1883. The building has a floor space of 19,592 square metres and an area of 113,000 square metres, with seven courtyards and 1,575 rooms. The corridors have a total length of more than 2.5 kilometres.

The building in Vienna now serves as the seat of both the Mayor and City Council, but they kindly handed it over to our 300 delegates who joined in the celebration and used this event as a chance to relax and unwind, as well as to celebrate best practice.

*continues on page 15*

# EuroFM Reports

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## European FM Awards

Since their launch in 2007, the European FM Awards have become an important and welcome addition to the international facilities management calendar. This year we celebrated the Partners Across Borders Award. This award recognises excellence in delivering facility management services to an organisation located in more than one European country, and examines the challenges of different languages, cultures, currencies, regulations, and the strength of the partnership to overcome these.

The winner this year was Mace Macro with Invesco.

The judges were very impressed with this excellent partnership, which demonstrated consistency and dedication at overcoming the challenges of working across borders. Here, you can see Tony and me presenting this prestigious award to them.



From left to right are: Wayne Tantrum, Chairman of EuroFM; Reinhold Brickwehde, Senior Property

Manager Middle Europe of Invesco; Peter Brumby, Managing Director of Mace Macro; and Tony Keane, CEO of IFMA

## Student Poster Competition

Our Student Poster Competition is a well-established feature of EFMC, and this year was no different. We had 15 posters provided by 22 students from 9 associations across 5 countries. The judging panel produced a shortlist of three, which were voted on by the audience at the final conference session. The winner was Sigrid van der Pluijm from the Netherlands, who wins entry to this year's World Workplace in Phoenix and \$1,000 towards her travel costs. Van der Pluijm looked at optimising the ratio between facility costs and customer satisfaction.



## Honourable Membership

In 2009, the current Board developed an honourable membership for EuroFM that was endorsed by the members in January 2010 at Groningen. This gives the Board the ability to nominate individuals for this special accolade.

The honourable membership recognises individuals who have exhibited outstanding leadership and service towards EuroFM, and recognises a lifetime achievement in and around the field of Facility Management

So it was a sincere pleasure for me at the Gala Dinner in Vienna to bestow honourable membership on Ole Emil Malmström, a member of the DFM association.



Ole Emil was first involved with EuroFM in 1997 and his first members meeting was in Munich, where he met Keith Alexander for the first time as EuroFM Chairman.

At this time, he was the current Chairman of the Danish Facility Management (DFM) association, and kept this office from January 1997 to January 2006. During this time, he supported EuroFM as an avid supporter, developing the Facility Management network across Europe.

He was instrumental in helping EuroFM hold EFMC 2004 in Denmark, and this at that time was collaboration between EuroFM and DFM. His ability to get things achieved is beyond question, and to demonstrate this, he even encouraged the royal family in Copenhagen to hold a royal wedding during the end of conference, which I thought was superb planning. More importantly, this conference returned a profit which EuroFM was very grateful to receive.

He was persuaded to join EuroFM as Secretary/Treasurer in January 2006, and presented the 2005 budget at his first meeting which had made a modest profit of €2.00. Ole Emil mentioned at that meeting that Hans Braat (previous Secretary/Treasurer) had left a firm foundation and it was his duty to build on this.

He continued in his position as Secretary/Treasurer for EuroFM until December 2009, and helped us develop EuroFM for the members.

I have had the pleasure of knowing Ole Emil for the last 7 years, with our first meeting being at EFMC 2004 in Copenhagen. In my opinion, he is

an inspirational leader in the Facility Management profession, and well respected in DFM and across Denmark. His dedication to our association during his term in office as Secretary/Treasurer helped us present EuroFM as a thought leader in delivering FM strategy across Europe.

I was delighted that the Board fully endorsed his nomination, and he is a credit to our profession. I look forward to working with him, and this honourable membership gives him the opportunity to continue to support EuroFM well into the future. (Thank you.)

## European Facility Management Conference (EFMC) 2012

Having spoken about Ole Emil above, it is fitting that next year's conference is being held in the beautiful city of Copenhagen, Denmark, from the 23rd to the 25th of May 2012. As you can imagine, Ole Emil will play a big part in making this conference one of the best.



It promises to be just as exciting and informative as our previous conferences, and I hope to see you there!

Warm regards to all.  
Wayne Tantrum  
Chairman EuroFM

# Research Network Group

## Antje Junghans, Chair



The Research Network Group held their preconference meeting before EFMC 2011 on the 23rd of May in Vienna. The 20 participants

represented universities and research institutions from 7 countries. The RNG welcomed Prof. Sergio Vega as a new RNG member. He represents the University of Madrid and is an expert in

the field of energy efficiency research.

Special guests were four PhD students from Denmark, who will contribute to the development of, and participate in, the Post-graduate Network of the RNG. (To contribute to the PhD survey 2011, please contact: wind@zhaw.ch)

The proceedings of the 9th & 10th Research Symposiums at EFMC 2010 and EFMC 2011 are now available as a special edition of the EuroFM Journal – International Journal of Facilities Management (ISBN 978-94-90694-04-3, ISBN 978-94-90694-05-0). The RNG would like to thank Dr. Margaret Nelson for her work. (To order: please contact eurofm@eurofm.org)

The main topic of the meeting was the EuroFM vision and strategy concept. The RNG has prepared substantial comments and provided input for further discussion and development.

A further topic on the RNG work plan was the preparation of the 11th Research Symposium at EFMC 2012 in Copenhagen. The call for paper is now open. The main focus will be added value of FM. Deadline for abstract submission will be the 14th of September 2011. The Scientific Committee includes professors and researchers from 10 countries. For further information, please contact: antje.junghans@eurofm.org (Chair of the Scientific Committee), or visit [www.efmc-conference.com](http://www.efmc-conference.com).

The next RNG meeting will be held in Munich on the 10th and 11th of November 2011. The agenda will include an update of the preparation for the 11th Research Symposium, the development of the European Researcher of the Year award, and the update of ongoing European research projects, as well as the establishment of new ones. One of

the main focuses will be the presentation and discussion of the PhD survey 2011.

The RNG encourages researchers, professors, post-graduates, PhD students and professionals to be active in the advancement of knowledge in FM across Europe. Our next RNG meetings will be:

- RNG Autumn Meeting in Munich, 10th and 11th of November 2011.
- RNG Spring Meeting in Kufstein, 19th & 20th of January 2012, at FH Kufstein Tirol Austria: The 14th Facility & Real Estate Management Congress ([info@fm-gespraech.at](mailto:info@fm-gespraech.at), [www.fh-kufstein.ac.at/fmg](http://www.fh-kufstein.ac.at/fmg))
- EFMC 2012 in Copenhagen, 23rd – 25th of May 2012

Kind regards  
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# EuroFM Reports

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## European Facility Management Conference 2011

**Richard Byatt, Chair of EFMI Editorial Board reports from Vienna**

History, technology and the generations collided in Vienna at the European Facility Management Conference, organised by EuroFM and IFMA. On a day when temperatures reached 300 °C, plenary sessions were held in a large marquee outside the University of Technology on Karlsplatz.



Delegates heard speakers against a gentle background of children laughing in the nearby playground, students cycling to classes and the bells of the 18th century Karlskirche.

The university has a long history of bringing innovation to the centre of Vienna. Francis I, first Emperor of Austria, founded an engineering school here in 1815 and for the last 200 years the main building has been in the centre of the city. Not all Viennese inventions were immediately commercially successful, we learned from Peter Skalicky, the university's rector. In nearby Ressel Park are statues of the inventors of the typewriter, sewing machine and motor car - they all died poor.

Facilities management is a more recent discipline but teaching and research have been underway at TU Wien for 20 years. Hopefully it won't take that long to solve Professor Skalicky's challenge to delegates to sort out scheduling problems for the university's lecture rooms.

As usual EFMC combines a business conference with a research symposium and this review gives just a flavour of both.

US "strategist" Daniel Rasmus opened the conference with a critique of modern management, including FM. We're trapped in early 20th century industrial thinking, he argued. This leads to people asking

industrial age questions and being overly concerned with the concept of productivity, rather than asking "knowledge economy questions." You can't measure the ROI of a building, there are just too many variables. Instead you should think about passing on the design intent to future users.

On sustainability, Rasmus suggested we might be making progress when a company's stock rises because customers are buying less of its product!

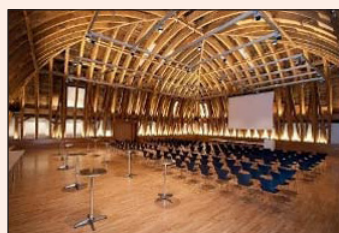
Displayed around the break area are over a dozen posters prepared by FM students from European institutions. They include a museum designed by talking to the potential visitors and a project for transferring FM knowledge through online game play (<http://playfm.htw-berlin.de/> German only). The poster on the potential uses of Twitter in operational FM attracted interest.



Back at the conference, Dr Henning Dransfeld of T-Systems outlined some of the challenges arising from the accelerating take-up of mobile communications. Rapid change in the market demands flexibility from those administering the use of smartphones in organisations to ensure "enterprise grade" solutions are maintained whilst giving users what they want and have got used to in their personal life.

Dangers lurk in the rise of social media. While students might be promoting the use of Twitter, Dransfeld explained that Facebook is essentially a tool for accessing user data. An IT service engineer might be able to solve your problem quickly by consulting his Facebook "friends" but it could open up a window on your organisation that you'd rather keep closed.

It was a lot cooler in the magnificent Kuppelsaal, home to the Research Symposium, where the exposed timber roof beams and trusses make you feel you're sitting beneath a huge upturned boat.



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## Education Network Group

**Klaus Homann, Chair**



**The focus during EuroFM Student Awards 2011**

We will start with the bad news: unfortunately we did not receive enough entries for this year's European Student of

the Year Award. Therefore, we decided to cancel the award for this year.

The winner of this year's student poster competition is again a student from NHTV Breda University of Applied Sciences in the Netherlands! Sigrid van der Pluijm convinced the audience in the closing plenary session with the presentation of her research project "Optimizing the ratio between facility costs and customer satisfaction". In her research, Sigrid examined how to increase customer satisfaction by equal or reduced facility costs. She concluded that soft factors do in fact have a significant positive influence on customer satisfaction, that they are of greater influence on customer satisfaction than hard factors, and that reducing the frequency (hard factor) did not have any significant effect on customer satisfaction. "Customer satisfaction is like an iceberg; only 10% is visible, while the real drivers (90%) are beneath the surface." She made her assignment round by developing a tool called "The Facility Experience Scan", which is based upon the Censydiam model. It measures

the experience level by so called SMART statements and shows the difference between IST and SOLL situation. Sigrid's recommendation is: "Think 90% soft, 10% hard, and try to trigger the unconscious experience of your customers to increase client satisfaction."

**Sponsors needed!**

Offering awards is an important and honourable duty of our association. It is our contribution to attract the best of Europe's Facility Management students to our profession. Thus, we also support the industry to meet with highly qualified and motivated potential future employees. However, those awards can only be offered if companies are willing to support us as sponsors. This year we did not succeed in our search for sponsors for the student award.

We urgently need sponsors for next year's awards! Should you consider supporting us, please do not hesitate to contact me any time, at: [homann@dhbw-stuttgart.de](mailto:homann@dhbw-stuttgart.de)

**Discussion on European Model of Competencies in FM continues**

Following an interesting plenary session during EFMC in Vienna, the ENG will continue the project on developing a model of competencies. Over the last few months, we gained great input from LOOFD, the Dutch association of FM faculties, with their new National Facility Management Competency Profile 2010. This is a convincing new model, as it is applicable to all development stages of FM markets. The paper also delivers an interesting mission definition of Facility Management: "Facility Management creates and adds value to organisations by facilitating, in a hospitable and flexible manner, the work activities and accommodation of individuals and groups in the areas of service and property management."

## Practice Network Group

**David Martinez, Chair**



First of all, I could not start this report without thanking all the people who attended, participated in, and helped to make the last EFMC conference a big success. It was

the largest conference so far in Europe and a huge step forward for the profession. I would also like to thank the organisers for managing changes and needs in a highly professional manner.

Secondly, I must celebrate and share with you the fact that the second block of Facility Management European Norms (15221-3, 4, 5 and 6) has been approved. This has involved a great effort from many people in many countries, and is another huge step forward.

It is worth mentioning that we are working at board level to update the style and nature of the EFMC. As I mentioned in my last report, we have to face the new era, and have been looking at other disciplines to see how they organise their symposiums, how they present their findings, access and connectivity of the event, type of speakers, and most importantly, what the "clients" want. So far, we have discovered that networking and opportunities to meet people are as valuable as the content itself, flexibility and access to information. These

are all key aspects and we are working to add these elements into EFMC in the coming years.

We have started the second stage in the Market Data Report. We are now looking for more data from the countries for which we did not have much information in the first document. The fact that the document was presented at the last EFMC helped to find volunteers from these "missing data countries", and we have already filled in some of the gaps.

Through exploring what could add more value to the network, and continuing with the objective to bring FM closer at a board level, a new project has been launched. Although the title has not yet been decided, the objective and scope is clear; to provide the market field at European level, and with European vision, with a document that shows what is happening now in FM, and what are the hot topics and actual projects. Additionally, it aims to look at mid term objectives, trends and investments, as well as looking at the long term, where the profession could be in the next 5-10 years. The report is aimed to be finished by the end of this year, hopefully.

I have a personal request for members. Every time we meet at the Practice Network Group, we have different people representing the different associations. We do not have an updated list to allow us to contact the interested or related person to PNG, apart from the same 3 or 4 people as always. I would kindly request to send one contact person interested in the PNG and updated this contact in case that it changes. I would like to finish this brief report, inviting all readers to participate responding to the Call for Papers for the next EFMC, to take place in Copenhagen in 2012.



# EuroFM Reports

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"Practitioners don't read peer-reviewed journals, ever ... period," said Professor Alexi Marmot, somewhat contentiously. Although a delegate remarked later that the challenge is greater, as even researchers in related disciplines don't read FM research!

Marmot has been looking at the evidence base that FMs might use. In some areas it is extensive; indoor air quality for example. In others it is thin (new ways of working) or non-existent (sustainability).

Of course Marmot is talking about evidence derived from genuine research, rather than anecdote and she acknowledged that it is very difficult to design experiments which isolate the variable you wish to examine – a similar point to that made by Rasmus in the business context. "Workplace change usually accompanies other organisational change," she said.

Her possible solution? Huge samples, control groups and the sort of longitudinal studies undertaken in fields such as healthcare.

The emerging economies offer huge potential for FM professionals and providers if the views of a panel are representative. Eloquent speakers from Brazil, Turkey, Ukraine and Saudi Arabia summarised the state of development of the FM market in those territories.

The theme was that these are young, vibrant economies, open to investment. However, cheap labour in Ukraine has delayed outsourcing and FM is not developed. FM is a "serious profession" in Turkey and having progressed beyond infancy, is now maturing with a need to shift the emphasis from cost to quality. The concept of FM in India is very traditional – not much more than cleaning and security but again, the potential is there.



Apparently there has been something of a "goldrush" by international FM companies in Brazil recently. A couple of speakers referred to the evolutionary process in which successful local service providers expand and are eventually bought by international players. Sinan Findikoglu, of YKS Property Management in Turkey, predicted that there would be no local FM

companies in three or four years.

The second day of EFMC 2011 got off to a great start with the 'FM Debate of the Year' which followed a rapid and entertaining format. Bernard Drion, Associate Professor at NHTV Breda University of Applied Sciences in the Netherlands, set out a number of propositions around work and the workplace. His opponents, Peter Prischl (CEO, Reality Consult, Austria and Kathy Roper, Associate Professor Georgia Institute of Technology, School of Building Construction) then had two minutes to respond, followed by delegate voting.

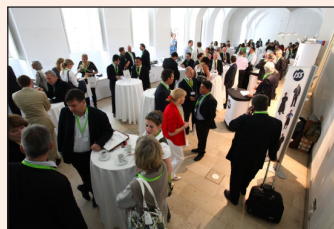
The 12 propositions were deliberately provocative:

- Facility management is the management of all services that are needed to support people in creating added value for the organisation
- Analysis by generations (baby boomer, X, millennial etc) is nonsense
- Employers must trust employees
- It doesn't matter where you work
- Forget technical specs, determine guest journeys
- IT renders corporate offices superfluous
- Adopt the Martini concept; with no check-in
- We must build more bazaars rather than cathedrals\*
- Hospitality based on company's DNA creates added value
- FM's main issue should be future scenarios
- Buildings, furniture, fixture and equipment: it's all commodities
- FM should be redefined as hospitality management

\* a reference to the influential writings of Eric S. Raymond under the title 'The Cathedral and the Bazaar'

Drion argued that managing the physical environment should not be FM's top priority but fourth after services, hospitality and what he called "the personal context" of the building user.

He said measurements such as cost per square metre or FTE were no longer interesting or relevant, although cost per guest might be useful. Organisations need to use different dashboard metrics such as diversity, tolerance, creativity and serendipity.



Prischl and Roper thought Drion's definition was too all-encompassing. FMs cannot ignore their fundamental responsibilities and should be wary of becoming jacks of all trades. On classifying by generations they thought life stage was more important than age.

Despite Drion having plenty of time to expound on his views, the responses from Prischl and Roper were sufficient to carry the day with a narrow 6:5 points victory and one draw.

The research and business streams came together for a joint session to hear about an almost unique case study, to paraphrase Alexi Marmot's description. Irmelin Aarberg Andersen, a project manager with SpareBank of Norway and Dr Siri Hunnes Blakstad of the Norwegian University of Science & Technology, presented the project to create a new headquarters for the bank in Trondheim. It is the largest financial corporation in the region, employing 1,100 people at 56 different locations including two adjacent headquarters buildings in Trondheim, built in 1882 and 1978. The goals were to align the new HQ with organisational objectives, which include contributing to the community.



Blakstad and Andersen sought to combine two perspectives in the research - setting goals and defining targets during briefing and design, and later evaluating the results according to the same measures after completion. Cooperation between bank and researcher lasted all the way through the project, which commenced in 2005. What makes it perhaps unique is the willingness of both the client and the wider professional team to be measured against published objectives.

A study trip to the UK prompted the team to coin an acronym as a "brand" for the project. SMART stands for Samhandling (cooperation), Miljø (environment), Attraktiv (attractive), Rasjonell (rational), and Teknologi (technology)

The bank occupied the new complex in November 2010. Ambitions, objectives and measures were identified. Occupancy data and interviews are used to compile a scorecard and a quarterly report on KPIs for the bank's board. The ambitions can be summarised as: A stronger brand; more synergy and innovation through cooperation; increased productivity.

It is clearly still too early for definitive conclusions but greater cooperation appears to be an early benefit. The researchers say this might partly be a result of the new building, but also be related to the processes that have been conducted during the relocation: "There has been a strong focus on developing the organization, locating people with potential benefits of working together in the same workspace. All departments were asked to analyse and work for better cooperation with the other units. The process of appointing people with a special responsibility for facilitation cooperation and new work processes (the SMART ambassadors) is also expected to be important for good results."

A well-established feature of EFMC is the Student Poster Competition. Presentations to the judging panel produced a shortlist of three which were voted on by the audience at the final conference session. The winner was Sigrid van der Pluijm from the Netherlands who wins entry to this year's World Workplace in Phoenix and \$1,000 towards travel costs. Van der Pluijm looked at optimising the ratio between facility costs and customer satisfaction.

EFMC2011 finished with a quick-fire session by the futurist and founder of Global Change Ltd., Patrick Dixon. He really connected with the audience by showing that he understood the risks that FMs have to manage and the contribution good FM can make to the goals of an organisation.

Dixon said "front of house" staff are crucial. He trained as a physician and said hospital cleaners save lives. In fact, cleaners are important in all organisations – they help create first impressions, particularly as the first thing many visitors to buildings do is visit the toilet. And if some of the most important conversations happen in rest rooms, then cleaners also help to build teams!

Around 500 people attended EFMC2011, from more than 20 countries. Almost a quarter were from academia or the sciences; 16% practising FM; consultants 12%

Over 60% were either at board level/directors (32%) or managers (32%).

EFMC 2012 will be in Copenhagen, 23 - 25 May

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